Application No. 10/775,542
Filed: February 10, 2004
TC Art Unit: 3742
Confirmation No.: 6694

REMARKS

Claims 1-22 have been rejected under 35 U.S.C. § 103(a) over Rohkvarger (US 5,911,941) or Brennan (US 6,344,634) in view of Orbeck (US 5,795,146). Reconsideration of this rejection is respectfully requested.

Claim 1 as amended recites, among other things, one or more eductors each having an outlet located in a furnace chamber to provide circulation of gas within the furnace chamber. One or more openings are disposed through a support assembly. Each eductor is aligned with a respective opening through the support assembly to provide a circulation path from one side of the furnace chamber to the other side.

Rohkvarger has been cited for disclosing a furnace having a furnace chamber, a support assembly, a microwave heating source, and a convection/radiation heating source for heating ceramic materials. Orbeck has been cited for supplying the teaching of eductors.

Neither Rohkvarger nor Orbeck, however, discloses, teaches, or suggests an opening through a support assembly within a furnace, the eductor aligned with the opening to provide a circulation path from one side of the furnace chamber to the other side. Accordingly, amended claim 1 and the claims dependent therefrom are believed to be patentable thereover.

Brennan has also been cited for disclosing a furnace chamber, a support assembly, a microwave heating source, and a convention/radiation heating source for heating ceramic materials. As with Rohkvarger and Orbeck, Brennan does not disclose, teach, or suggest an opening through a support assembly within a furnace,

the eductor aligned with the opening to provide a circulation path from one side of the furnace chamber to the other side. Accordingly, amended claim 1 and the claims dependent therefrom are believed to be patentable thereover as well.

Claim 19 as amended recites, among other things, one or more eductors on each side of the furnace chamber and operative in alternating manner to provide a uniform and high volume circulation of gas within the furnace chamber. None of Rohkvarger, Brennan, and Orbeck disclose, teach, or suggest eductors operative in alternating manner to provide a uniform and high volume circulation of gas within the furnace chamber. Accordingly, claim 19 and the claims dependent therefrom are believed to be patentable thereover.

New independent claim 23, which corresponds generally to original claims 1 and 13, recites, among other things, at least one eductor on each side of the furnace chamber. Each eductor has an outlet located in the furnace chamber to provide circulation of gas within the furnace chamber. A controller is in communication with the eductors to operate the eductors in alternating manner to provide uniform circulation of gas in the chamber and uniform heating of the materials.

None of Rohkvarger, Brennan, or Orbeck discloses, teaches, or suggests eductors operative by a controller in alternating manner to provide a uniform and high volume circulation of gas within the furnace chamber. Accordingly, claim 23 and new dependent claims 24-37 are believed to be patentable over the prior art of record as well.

In view of the above amendments and remarks, all claims are believed to be in condition for allowance, and reconsideration and

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indication thereof are respectfully requested. The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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